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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,970	02/17/2004	Carl K. Esche JR.	0013.0014	9121

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MH2 TECHNOLOGY LAW GROUP (Cust. No. w/NewMarket)
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EXAMINER	
GOLOBOY, JAMES C	
ART UNIT	PAPER NUMBER
1797	

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09/03/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/779,970	ESCHE ET AL.	
	Examiner	Art Unit	
	James Goloboy	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *6/13/08*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34,37-39 and 42-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,8-34,37-39 and 42-44* is/are rejected.

7)☒ Claim(s) *4,6 and 7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/23/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. Claim 37 is rejected under 35 U.S.C. 102(b) as being anticipated by Udelhofen (U.S. Pat. No. 4,231,759).

In column 3 lines 16-35, Udelhofen discloses hydrocarbon fuels comprising a Mannich condensation product of a hydroxyaromatic compound, an aldehyde, and an amine, which is an untreated amine. In column 3 line 63 Udelhofen teaches that the aldehyde is preferably formaldehyde. The fuel of Udelhofen therefore meets the limitations of the fuel of claim 37. In column 3 lines 16-20 Udelhofen teaches that the fuel can be used to prevent intake valve deposit buildups in engines, meeting the limitations of the method of claim 37.

2. Claims 37-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Daly (U.S. Pat. No. 5,873,917).

In column 1 lines 7-10 Daly discloses gasoline compositions for reducing intake valve deposits. In column 7 lines 47-48 Daly discloses that the composition can comprise a nitrogen-containing dispersant, and in column 8 lines 1-19 discloses Mannich dispersants, which can be formed by the reacting of an alkyl-substituted hydroxyaromatic compound, formaldehyde, and an amine, as recited in claim 37. In column 8 lines 20-28 Daly discloses that the Mannich dispersant can be post treated, as recited in claim 38. The composition of Daly therefore meets the compositional

limitations of claims 37-38, and its use to reduce intake valve deposits in engines meets the limitations of the methods of claims 37-38.

Claim Rejections - 35 USC § 103

3. Claim 1-3, 5, 8-9, 11-12, 14-16, 18-21, and 42-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Kamakura (JP 1–95194).

The excerpted English translation of Kamakura submitted with the IDS dated 6/23/08 has been used in setting forth the rejection. In the reference's claim 1, Kamakura discloses an ashless dispersant prepared by reacting a hydrocarbon-substituted succinic anydride with a compound obtained by reacting an aliphatic amine with acrylonitrile, followed by. In Manufacturing Example 1, Kamakura discloses that the amine can be triethylene tetramine, as recited in claim 1, and that at the treated amine includes some primary amine. The general formula for the untreated aliphatic amine of Kamakura disclosed in the reference's claim 1 also encompasses diethylene triamine, tetraethylene pentamines, and pentaethylene hexamine, as recited in the current claim 1.

In Manufacturing Example 1, Kamakura discloses that the amine is reacted with four equivalents of acrylonitrile, within the range recited in claim 2. The amines of Kamakura are substantially linear, as recited in claim 3. In Example 1, Kamakura discloses that the mole ratio of succinic acid is within the range recited in claim 5. In Example 12 Kamakura discloses that the dispersant can be present in a concentration of 2% by weight in a lubricant composition, within the range recited in claim 9, and that

the dispersant can be combined with an additional dispersant, meeting the limitations of claims 11-12. It is further the examiner's position that the reaction product of the amine and acrylonitrile will still contain some unreacted (untreated) amine, meeting the limitations of claim 8.

The composition of Kamakura is a lubricant additive and therefore meets the limitations of claims 14-16, 18, and 42-44, and is also capable of use as a fuel additive, meeting the limitations of claims 19-21.

The difference between Kamakura and the currently presented claims is that Kamakura does not disclose a dispersant with a molecular weight within the claimed range. In the reference's claims 2-3, Kamakura discloses a polyamine reactantg with a molecular weight of 300 to 1100, and a polybutenyl succinic anyhydride with a molecular weight of 500 to 2000. The molecular weight of the reaction product will therefore range from approximately 800 to 3100, overlapping the claimed ranges. See MPEP 2144.05(I): "In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976);"

4. Claims 24-28, 30, 32-33, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bardasz (U.S. Pat. No. 5,595,964) in view of Kamakura.

In column 1 lines 8-10 Bardasz discloses a lubricant for engines, and in column 1 lines 11-32 teaches that it solves problems related to crankcase oils. In column 8 lines 17-51 Bardasz discloses that the composition has phosphorus and sulfated ash

contents within the range recited in claim 39. As the claim has no required sulfur-containing additives it is also considered to meet the limitation of claim 39 regarding sulfur content. In column 6 lines 50-55 Bardasz teaches that the lubricant preferably comprises a dispersant, but does not disclose the specific dispersant recited in the claims.

The discussion of Kamakura in paragraph 2 above is incorporated here by reference. The use of the dispersant of Kamakura as the dispersant of Bardasz meets the limitations of claims 24-28, 30, 32-33, and 39, and would have been obvious to one of ordinary skill in the art as Kamakura teaches that it has high dispersant and antioxidant activity.

5. Claims 10, 17, 22, 24-30, and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robson (U.S. Pat. No. 6,060,437) in view of Kamakura.

In column 1 lines 3-18 Robson discloses crankcase oils for engines in motor vehicles, and in column 7 lines 6-33 discloses that succinimides are a preferred group of ashless dispersants for the oils. In column 7 lines 34-35 Robson discloses that the dispersants can be post-treated. Robson does not disclose the specific dispersant recited in the claims.

The discussion of Kamakura in paragraph 2 above is incorporated here by reference. The use of the dispersant of Kamakura as the dispersant of Robson meets the limitations of claims 24-28, 30, and 32-33, and if the dispersant of Kamakura is post-treated as taught by Robson, claims 17, 22, 29, and 34 are met as well. It would have

been obvious to one of ordinary skill in the art to use the dispersant of Kamakura as the dispersant of Robson as Kamakura teaches that it has high dispersant and antioxidant activity.

6. Claims 13 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russo (U.S. Pat. No. 5,286,264) in view of Kamakura.

Russo, in column 2 lines 5-62, discloses a fuel additive comprising a succinimide. In column 9 lines 36-40, Russo discloses that the succinimide is preferably present in a concentration of 45 to 80 pounds per thousand barrels (PTB) of the fuel composition, within the range recited in claims 13 and 23. Russo does not disclose the specific dispersant recited in the claims.

The discussion of Kamakura in paragraph 2 above is incorporated here by reference. The use of the dispersant of Kamakura as the succinimide of Russo meets the limitations of claims 13 and 23, and would have been obvious to one of ordinary skill in the art as Kamakura teaches that it has high dispersant and antioxidant activity.

7. Claims 24 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srinivasan (U.S. Pat. No. 5,571,445) in view of Kamakura.

In column 1 lines 5-27 Srinivasan discloses gear oils for manual transmissions in vehicles. In column 7 lines 33-65 Srinivasan discloses that succinimide dispersants are a preferred additive, but does not disclose the specific succinimide recited in the claims.

The discussion of Kamakura in paragraph 2 above is incorporated here by reference. The use of the dispersant of Kamakura as the succinimide of Srinivasan meets the limitations of claims 24 and 30-33, and would have been obvious to one of ordinary skill in the art as Kamakura teaches that it has high dispersant and antioxidant activity.

Allowable Subject Matter

8. Claims 4 and 6-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Kamakura only discloses a dispersant obtained by the reaction of a hydrocarbon-substituted succinic anhydride and a treated aliphatic amine. There is no teaching or suggestion in Kamakura that would lead one of ordinary skill in the art to modify the amine of Kamakura to an aromatic amine, as recited in claim 4, or to change the succinimide product of Kamakura to a Mannich adduct or an ethylene-propylene copolymer as recited in claims 6-7. Claims 4 and 6-7 are also distinguished over the prior art discussed in previous office actions for the reasons discussed in those office actions.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Goloboy whose telephone number is (571)272-2476. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCG

/Glenn A Caldarola/
Acting SPE of Art Unit 1797